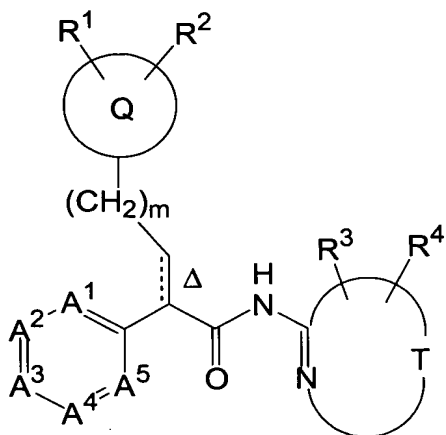


WHAT IS CLAIMED IS:

1. A compound of Formula (I):



(I)

or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein:

one of A^1 , A^2 , A^3 , A^4 and A^5 is N, another of them is $C-R^5$, another of them is $C-R^6$, and the other two are independently either N or CH;

Q is a C_{3-8} cycloalkyl, a 5- or 6-membered heteroaryl, or a 4–8-membered heterocyclic ring;

T together with the $-N=C-$ to which it is attached forms a heteroaryl ring, or a heterocyclic ring where the $N=C$ bond is the only site of unsaturation;

R^1 and R^2 each independently are hydrogen, halogen, hydroxy, cyano, nitro, vinyl, ethynyl, methoxy, OCF_nH_{3-n} , $-N(C_{0-4}alkyl)(C_{0-4}alkyl)$, CHO, or $C_{1-2}alkyl$ optionally substituted with 1-5 independent halogen, hydroxy, cyano, methoxy, $-N(C_{0-2}alkyl)(C_{0-2}alkyl)$, $SOCH_3$, or SO_2CH_3 substituents; or R^1 and R^2 together form a carbocyclic or heterocyclic ring; or R^1 and R^2 may be taken together to represent an oxygen atom attached to the ring via a double bond;

R^3 and R^4 each independently are hydrogen, halogen, OCF_nH_{3-n} , methoxy, CO_2R^{77} , cyano, nitro, CHO, $CONR^{99}R^{100}$, $CON(OCH_3)CH_3$, or $C_{1-2}alkyl$, heteroaryl, or C_{3-7} cycloalkyl optionally substituted with 1-5 independent halogen, hydroxy, cyano, methoxy, $-NHCO_2CH_3$, or $-N(C_{0-2}alkyl)(C_{0-2}alkyl)$ substituents; or R^3 and R^4 together form a 5–8-membered aromatic, heteroaromatic, carbocyclic, or heterocyclic ring;

R^5 and R^6 each independently are hydrogen, hydroxy, halogen, cyano, nitro, CO_2R^7 , CHO, COR^8 , $C(OH)R^7R^8$, $C(=NOR^7)R^8$, $CONR^9R^{10}$, SR^7 , SOR^8 , SO_2R^8 ,

SO₂NR⁹R¹⁰, CH₂NR⁹R¹⁰, NR⁹R¹⁰, N(C₀₋₄alkyl)SO₂R⁸, NHCOR⁷, or C₁₋₄alkyl group, C₂₋₄alkenyl group, C₂₋₄alkynyl group, C₁₋₄alkoxy group, aryl group, or heteroaryl group, wherein any group optionally is substituted with 1-6 independent halogen, cyano, nitro, hydroxy, C₁₋₂alkoxy, -N(C₀₋₂alkyl)(C₀₋₂alkyl), C₁₋₂alkyl, CF_nH_{3-n}, aryl, heteroaryl, -COC₁₋₂alkyl, -CON(C₀₋₂alkyl)(C₀₋₂alkyl), SCH₃, SOCH₃, SO₂CH₃, or -SO₂N(C₀₋₂alkyl)(C₀₋₂alkyl) substituents; or R⁵ and R⁶ together form a 5-8-membered carbocyclic or heterocyclic ring;

R⁷ and R⁷⁷ each independently are hydrogen, or C₁₋₄alkyl group, C₂₋₄alkenyl group, C₂₋₄alkynyl group, C₃₋₇cycloalkyl group, aryl group, heteroaryl group, or 4-7-membered heterocyclic group, wherein any group optionally is substituted with 1-6 independent halogen, cyano, nitro, hydroxy, C₁₋₂alkoxy, -N(C₀₋₂alkyl)(C₀₋₂alkyl), C₁₋₂alkyl, C₃₋₇cycloalkyl, 4-7-membered heterocyclic ring, CF_nH_{3-n}, aryl, heteroaryl, CO₂H, -COC₁₋₂alkyl, -CON(C₀₋₂alkyl)(C₀₋₂alkyl), SOCH₃, SO₂CH₃, or -SO₂N(C₀₋₂alkyl)(C₀₋₂alkyl) substituents;

R⁸ is C₁₋₄alkyl group, C₂₋₄alkenyl group, C₂₋₄alkynyl group, C₃₋₇cycloalkyl group, aryl group, heteroaryl group, or 4-7-membered heterocyclic group, wherein any group optionally is substituted with 1-6 independent halogen, cyano, nitro, hydroxy, C₁₋₂alkoxy, -N(C₀₋₂alkyl)(C₀₋₂alkyl), C₁₋₂alkyl, C₃₋₇cycloalkyl, 4-7-membered heterocyclic ring, CF_nH_{3-n}, aryl, heteroaryl, CO₂H, -COC₁₋₂alkyl, -CON(C₀₋₂alkyl)(C₀₋₂alkyl), SOCH₃, SO₂CH₃, or -SO₂N(C₀₋₂alkyl)(C₀₋₂alkyl) substituents;

R⁹, R¹⁰, R⁹⁹, and R¹⁰⁰ each independently are hydrogen, or C₁₋₄alkyl group, C₃₋₇cycloalkyl group, aryl group, heteroaryl group, or 4-7-membered heterocyclic group, wherein any group optionally is substituted with 1-6 independent halogen, cyano, nitro, hydroxy, C₁₋₂alkoxy, -N(C₀₋₂alkyl)(C₀₋₂alkyl), C₁₋₂alkyl, C₃₋₇cycloalkyl, 4-7-membered heterocyclic ring, CF_nH_{3-n}, aryl, heteroaryl, -COC₁₋₂alkyl, -CON(C₀₋₂alkyl)(C₀₋₂alkyl), SOCH₃, SO₂CH₃, or -SO₂N(C₀₋₂alkyl)(C₀₋₂alkyl) substituents; or R⁹ and R¹⁰ or R⁹⁹ and R¹⁰⁰ together form a 6-8-membered heterobicyclic ring system or a 4-8-membered heterocyclic ring which optionally is substituted with 1-2 independent C₁₋₂alkyl, CH₂OCH₃, COC₀₋₂alkyl, hydroxy, or SO₂CH₃ substituents;

n is 1, 2 or 3;

m is 0 or 1;

the dotted line together with the solid line forms an optional double bond, and Δ indicates that the double bond has the (*E*)-configuration; and

with the proviso that Formula (I) does not represent 3-cyclopentyl-2-pyridin-4-yl-*N*-thiazol-2-ylpropionamide.

5

2. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein

the dotted line together with the solid line forms a double bond;

A^3 is $C-R^5$, A^4 is $C-R^6$, one of A^1 , A^2 and A^5 is N, and the other two are CH.

10

3. A compound according to claim 2, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is a C_{3-8} cycloalkyl ring.

4. A compound according to claim 2, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is a 4–8-membered heterocyclic ring.

15

5. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein

the dotted line together with the solid line forms a double bond;

A^3 is $C-R^5$, A^4 is N, one of A^1 , A^2 and A^5 is N, and the other two are CH.

20

6. A compound according to claim 5, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is a C_{3-8} cycloalkyl ring.

25

7. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein

the dotted line together with the solid line forms a single bond;

A^3 is $C-R^5$, A^4 is $C-R^6$, one of A^1 , A^2 and A^5 is N, and the other two are CH.

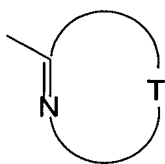
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8. A compound according to claim 7, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is a C_{3-8} cycloalkyl ring.

9. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is a C₃₋₈cycloalkyl or a 4–8-membered heterocyclic ring.

10. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein Q is cyclopentyl, cyclohexyl, tetrahydropyranyl, tetrahydrothiopyranyl, 1-oxo-tetrahydrothiopyranyl or 1,1-dioxo-tetrahydrothiopyranyl.

11. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein the group of formula



is 2-pyridyl, 2-pyrazinyl, 2-pyrimidinyl, 4-pyrimidinyl, 3-(1*H*-pyrazolyl), 2-(1*H*-imidazolyl), 5-[1,2,4]thiadiazolyl, 2-[1,3,4]thiadiazolyl, 2-(4,5-dihydrothiazolyl), 3-isoxazolyl, 2-oxazolyl, or 2-thiazolyl.

12. A compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, wherein the dotted line together with the solid line forms a single bond, and the absolute configuration at the asymmetric centre α to the amide carbonyl carbon is (*R*).

13. A compound according to claim 1 wherein R³ is hydrogen, halogen, C₁₋₂alkyl, or trifluoromethyl; and R⁴ is hydrogen or methyl.

14. A compound selected from:

2-(6-Chloropyridin-3-yl)-3-cyclopentyl-*N*-thiazol-2-ylpropionamide;

3-Cyclopentyl-2-(6-phenylpyridin-3-yl)-*N*-thiazol-2-ylpropionamide;

3-Cyclopentyl-*N*-thiazol-2-yl-2-(6-thiophen-3-ylpyridin-3-yl)propionamide;

3-Cyclopentyl-2-pyridin-3-yl-*N*-thiazol-2-ylpropionamide;

(*E*)-3-Cyclopentyl-2-(6-methylsulfanylpypidin-3-yl)-*N*-thiazol-2-ylacrylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-methylsulfanylpypidin-3-yl)acrylamide;

- (*E*)-3-Cyclopentyl-2-(6-ethylsulfanylpurin-3-yl)-*N*-thiazol-2-ylacrylamide;
 (*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-ethylsulfanylpurin-3-yl)acrylamide;
 (*E*)-3-Cyclopentyl-2-[6-(5-methyltetrazol-1-yl)purin-3-yl]-*N*-thiazol-2-ylacrylamide;
 (*E*)-3-Cyclopentyl-*N*-thiazol-2-yl-2-(6-[1,2,4]triazol-1-yl)purin-3-yl)acrylamide;
 (*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-[1,2,4]triazol-1-yl)purin-3-yl)acrylamide;
 (*E*)-3-Cyclopentyl-2-(5-methylsulfanylpurin-2-yl)-*N*-thiazol-2-ylacrylamide;
 (*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(5-methylsulfanylpurin-2-yl)acrylamide;
 3-Cyclopentyl-2-(6-fluoropurin-3-yl)-*N*-thiazol-2-ylpropionamide;
 (*E*)-3-Cyclopentyl-2-(2-propylsulfanylpuridin-5-yl)-*N*-thiazol-2-ylacrylamide;
 (*E*)-3-(4-Tetrahydropyranyl)-2-(6-methanesulfanylpurin-3-yl)-*N*-thiazol-2-ylacrylamide;
N-(5-Chloropurin-2-yl)-3-cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)propionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-[1,2,4]thiadiazol-5-ylpropionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-(5-furan-2-yl-[1,3,4]thiadiazol-2-yl)propionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-[1,3,4]thiadiazol-2-ylpropionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-pyrimidin-2-ylpropionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-(4-methyloxazol-2-yl)propionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-(4-methylpurin-2-yl)propionamide;
 3-Cyclopentyl-2-(6-cyclopropanesulfonylpurin-3-yl)-*N*-(6-methylpurin-2-yl)propionamide;

3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-isoxazol-3-ylpropionamide;

3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-(5-fluoropyridin-2-yl)propionamide;

5 3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-(1-methyl-1*H*-pyrazol-3-yl)propionamide;

3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-(5-methylpyridin-2-yl)propionamide;

10 3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-pyridin-2-ylpropionamide;

N-Benzothiazol-2-yl-3-cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)propionamide;

3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-pyrazin-2-ylpropionamide;

15 *N*-(6-Chloropyrazin-2-yl)-3-cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)propionamide;

3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-pyrimidin-4-ylpropionamide;

20 3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-(3-methyl-[1,2,4]thiadiazol-5-yl)propionamide;

(*E*)-3-Cyclopentyl-2-(6-methanesulfonylpyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-methanesulfonylpyridin-3-yl)acrylamide;

25 (*E*)-3-Cyclopentyl-2-(6-ethanesulfonylpyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-ethanesulfonylpyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(5-methanesulfonylpyridin-2-yl)-*N*-thiazol-2-ylacrylamide;

30 (*E*)-*N*-(5-Bromothiazol-2-yl)-3-cyclopentyl-2-(6-methanesulfonylpyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)-*N*-(5-fluorothiazol-2-yl)acrylamide;

5 (*E*)-2-[3-Cyclopentyl-2-(6-cyclopropanesulfonylpyridin-3-yl)acryloylamino]thiazole-5-carboxylic acid methylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(5-methanesulfonylpyridin-2-yl)acrylamide;

10 (*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(5-methanesulfinylpyridin-2-yl)acrylamide;

(*E*)-2-[5-Chloro-6-(propane-1-sulfonyl)pyridin-3-yl]-3-cyclopentyl-*N*-thiazol-2-ylacrylamide;

(*E*)-2-[5-Chloro-6-(propane-1-sulfinyl)pyridin-3-yl]-3-cyclopentyl-*N*-thiazol-2-ylacrylamide;

15 (*E*)-2-(5-Chloro-6-methanesulfonylpyridin-3-yl)-3-cyclopentyl-*N*-thiazol-2-ylacrylamide;

(*E*)-2-(5-Chloro-6-methanesulfinylpyridin-3-yl)-3-cyclopentyl-*N*-thiazol-2-ylacrylamide;

20 (*E*)-2-(5-Chloro-6-methanesulfonylpyridin-3-yl)-*N*-(5-chlorothiazol-2-yl)-3-cyclopentylacrylamide;

(*E*)-2-(5-Chloro-6-methanesulfinylpyridin-3-yl)-*N*-(5-chlorothiazol-2-yl)-3-cyclopentylacrylamide;

(*E*)-3-Cyclopentyl-*N*-(5-fluorothiazol-2-yl)-2-(6-methanesulfonylpyridin-3-yl)acrylamide;

25 (*E*)-3-Cyclopentyl-*N*-(5-fluorothiazol-2-yl)-2-(6-methanesulfinylpyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(6-methanesulfinylpyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

(*E*)-3-Cyclopentyl-2-(6-ethanesulfinylpyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

30 (*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-ethanesulfinylpyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(5-methanesulfinylpyridin-2-yl)-*N*-thiazol-2-ylacrylamide;

(E)-3-Cyclopentyl-2-[2-(propane-1-sulfinyl)pyrimidin-5-yl]-N-thiazol-2-ylacrylamide;
 (E)-3-Cyclopentyl-2-(6-ethanesulfinylpyridin-3-yl)-N-(5-fluorothiazol-2-yl)acrylamide;
 5 (E)-3-Cyclopentyl-2-(6-cyclopropanesulfinylpyridin-3-yl)-N-thiazol-2-ylacrylamide;
 (E)-N-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-cyclopropanesulfinylpyridin-3-yl)acrylamide;
 (E)-3-Cyclopentyl-2-(6-cyclopropanesulfinylpyridin-3-yl)-N-(5-fluorothiazol-2-yl)acrylamide;
 10 (E)-3-Cyclopentyl-2-(6-methanesulfinylpyridin-3-yl)-N-(5-chlorothiazol-2-yl)acrylamide;
 3-Cyclopentyl-2-(6-methanesulfonylpyridin-3-yl)-N-thiazol-2-ylpropionamide;
 15 3-Cyclopentyl-2-(6-mercaptopyridin-3-yl)-N-thiazol-2-ylpropionamide;
 3-Cyclopentyl-2-(6-methanesulfinylpyridin-3-yl)-N-thiazol-2-ylpropionamide;
 3-Cyclopentyl-2-(6-methoxymethanesulfinylpyridin-3-yl)-N-thiazol-2-ylpropionamide;
 3-Cyclopentyl-2-[6-(propane-2-sulfinyl)pyridin-3-yl]-N-thiazol-2-ylpropionamide;
 20 3-{5-[2-Cyclopentyl-1-(thiazol-2-ylcarbamoyl)ethyl]pyridin-2-ylsulfanyl}propionic acid;
 3-{5-[2-Cyclopentyl-1-(thiazol-2-ylcarbamoyl)ethyl]pyridine-2-sulfonyl}propionic acid;
 25 {5-[2-Cyclopentyl-1-(thiazol-2-ylcarbamoyl)ethyl]pyridin-2-ylsulfanyl}acetic acid;
 {5-[2-Cyclopentyl-1-(thiazol-2-ylcarbamoyl)ethyl]pyridine-2-sulfonyl}acetic acid;
 {5-[2-Cyclopentyl-1-(thiazol-2-ylcarbamoyl)ethyl]pyridine-2-sulfinyl}acetic acid;
 30 (E)-2-(6-Aminopyridin-3-yl)-N-(5-chlorothiazol-2-yl)-3-cyclopentylacrylamide;
 (E)-2-(6-Aminopyridin-3-yl)-3-cyclopentyl-N-thiazol-2-ylacrylamide;
 (E)-3-Cyclopentyl-2-(6-methylaminopyridin-3-yl)-N-thiazol-2-ylacrylamide;

(*E*)-*N*-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-(6-methanesulfonylamino)pyridin-3-yl)acrylamide;

(*E*)-3-Cyclopentyl-2-(6-methanesulfonylamino)pyridin-3-yl)-*N*-thiazol-2-ylacrylamide;

5 (*E*)-3-Cyclopentyl-2-[6-(methanesulfonylmethylamino)pyridin-3-yl]-*N*-thiazol-2-ylacrylamide;

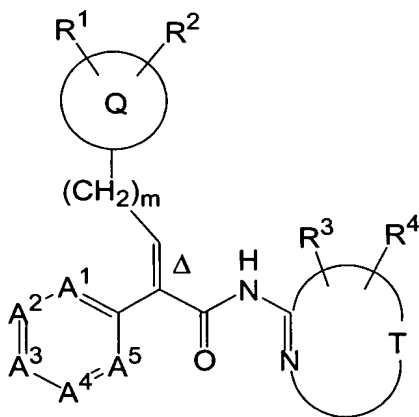
or a pharmaceutically acceptable salt or *N*-oxide thereof.

10 15. A pharmaceutical composition comprising a compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof, and a pharmaceutically acceptable carrier.

15 16. A method of prophylactic or therapeutic treatment of hyperglycemia or diabetes comprising a step of administering an effective amount of the compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof.

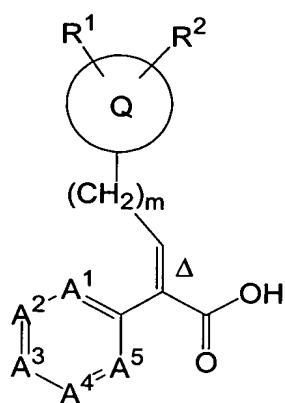
20 17. A method of prevention of diabetes in a human demonstrating pre-diabetic hyperglycemia or impaired glucose tolerance comprising a step of administering an effective prophylactic amount of the compound according to claim 1, or a pharmaceutically acceptable salt or *N*-oxide thereof.

18. A process for the preparation of a compound of Formula (Ia):



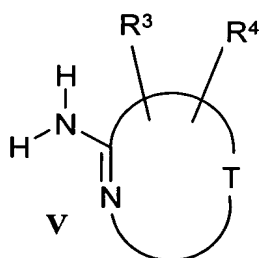
(Ia)

25 said process comprising a step of the condensation of a compound of Formula (IV):



IV

with a compound of Formula (V):

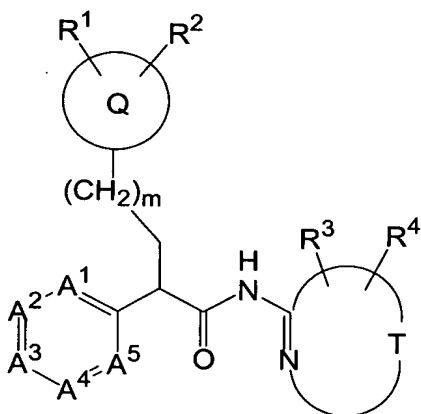


V

wherein A^1-A^5 , Q, T, R^1-R^4 , m and Δ are as defined in claim 1.

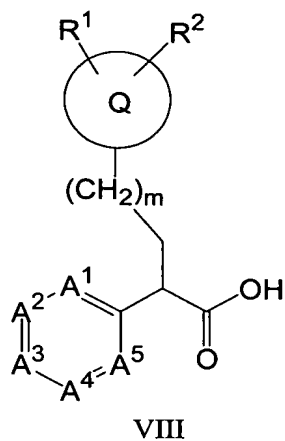
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19. A process for the preparation of a compound of Formula (Ib):

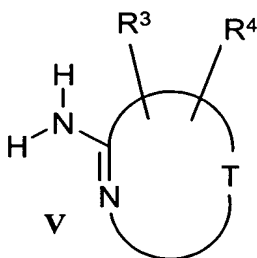


(Ib)

said process comprising a step of the condensation of a compound of Formula (VIII):

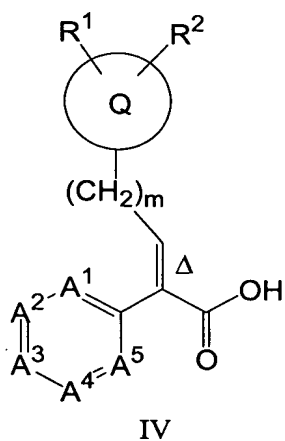


with a compound of Formula (V):



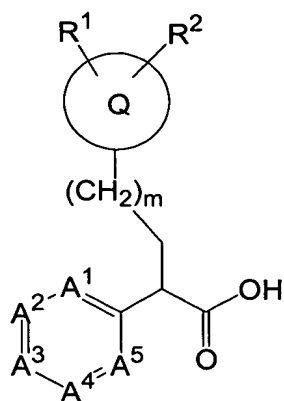
wherein A¹-A⁵, Q, T, R¹-R⁴ and m are as defined in claim 1.

20. A compound of Formula (IV):



wherein A¹-A⁵, Q, R¹, R², m and Δ are as defined in claim 1.

21. A compound of Formula (VIII):



VIII

wherein A¹–A⁵, Q, R¹, R² and m are as defined in claim 1.